on the COVER

An Everglades morning sky provides a stunning backdrop for a striking anhinga.

Cycling is a popular recreational activity along the 110-mile Lake Okeechobee Scenic Trail.

A few inches under the water's surface, a crab scurries along the wetland bottom at Fakahatchee Strand State Preserve, one of several natural areas benefiting from Everglades restoration projects. Documenting sufficient water flow for a healthy environment is the purpose of 23 monitoring wells in the region.

A DAY AT THE DISTRICT

with...

Tim Howard

Special Engineering Associate

Specializing in wells to monitor Everglades wellness

When the primary goal of Everglades restoration is to bring more water into the natural system, how do you know when you have enough?

That's what Tim Howard plans to find out. He helps the South Florida Water Management District build wells, but not the kind that pump drinking water up to household faucets. Howard's wells, called monitoring wells, are for measuring what's in the ground and staying in the ground, to get an idea of how much water is flowing through the Everglades wetlands.

His specific task as part of the team working on the Picayune Strand Restoration Project during the past two years has been to plan, locate and drill 23 monitoring wells. In this project, a natural sheetflow of water is being restored across 85 square miles in Collier County, which were drained in the early 1960s for residential development that was never built. The restoration project, part of the District's *Acceler8* initiative, includes 83 miles of canal plugs, 227 miles of road removal and the addition of pump stations and spreader swales to rehydrate wetlands and maintain local flood protection.

Work is under way, and wetland vegetation is already returning around a 2-mile stretch of the filled-in Prairie Canal. Fragile, protected areas that will benefit from the project include remnant Everglades in the Ten Thousand Islands National Wildlife Refuge, Fakahatchee Strand State Preserve, Florida Panther National Wildlife Refuge and Collier Seminole State Park. Threatened and endangered species, such as the Florida panther and the red cockaded woodpecker, will also benefit from the ecosystem renewal.

That's fine by Howard, a long-time outdoorsman and expert on the local flora and fauna. "I started out in the 1970s with FDOT (Florida Department of Transportation)," Howard said. "I worked in maintenance, construction and then on a surveying crew. We would leave the office on Monday morning and not return until Friday afternoon." That's a good way to learn the land–measuring, studying, mapping and also appreciating the undeveloped landscape.

On and off the job, Howard has seen Florida panther, bear, wild boar, deer, alligators and too many kinds of birds to count. During an airboat ride to check on a new monitoring well, he names tree varieties and wetland plants and fish species like a man who knows this part of South Florida like the back of his hand. Which he does.

Maybe that's why his official job title is special engineering associate. How do you put a label on an employee who can study an aerial map and advise where to drill monitoring wells, who can design the wells needed for the job, who can write permit requests for access to protected state land, who can contract firms to do the drilling and who can take measurements in the wells once they are built?

"I'm a man of many hats," Howard said. You begin to suspect that's where the "special" in his title comes from.

Tim Howard checks on a new monitoring well and takes a few basic measurements. When fully equipped, the well will record water levels, pressure and salinity, providing details of ecosystem improvements.

Belle Glade, South Bay and Pahokee city officials join South Florida Water Management District and Palm Beach County project partners Sept. 17 to commence construction of the new Lake Region Water Treatment Plant in Belle Glade. A $5 million Alternative Water Supply grant will help fund the reverse osmosis facility to ensure reliable water supply for the Lake Okeechobee communities.

Alternative water supply projects receive unprecedented support

$58.7 million in District, state grants to fund 80 local projects

Not only is the South Florida Water Management District and its partners ramping up restoration and public recreation efforts, the agency is also rapidly moving forward with implementing an unprecedented alternative water supply project funding initiative.

A recommendation for funding 80 new alternative water supply projects was approved in October by the District's Governing Board. This approval underscores the Florida Legislature's commitment to diversifying water resources for the state's growing population by funding development of alternative water supplies through the state's new Water Protection and Sustainability Program (Senate Bill 444). District and state funding will be combined to help build projects sponsored by local governments and private entities.

"It is exciting to have additional funding to help protect and enhance water supplies in our local communities," said Carol Ann Wehle, the District's executive director. "This support from the state will get many more projects under way, and will be especially helpful to some communities that have waited years for this kind of benefit."

For fiscal year 2006, almost $58.7 million will be directed for alternative water supply projects throughout southern Florida, with the state providing $30 million of that sum. When completed, the 80 projects together will provide 304 million gallons per day (MGD) of additional water supply. Almost two-thirds of that, 172 MGD, is expected to be available as early as next year.

Alternative water supplies are nontraditional sources of water supply. In South Florida, this includes the use of saltwater and brackish water, capturing surface water during wet weather, using reclaimed water, and stormwater captured from reservoirs or aquifer storage and recovery systems. Projects that produce usable water from these sources can be costly to build but, once constructed, will provide a community with millions of gallons of additional water supply.

Tremendous response

In response to this initiative, 119 proposals from throughout the 16-county District were submitted for funding consideration. Proposals for desirable features such as minimizing impact on existing water resources, reducing local competition for water, achieving water conservation targets and producing a high quantity of alternative water supply relative to project cost. In addition, the projects had to be ready for construction in 2006 and be consistent with existing regional water supply plans.

Examples of projects funded for the coming year include a stormwater reuse facility for irrigation in Osceola County, construction of reverse-osmosis facilities in Fort Lauderdale and North Miami Beach for treatment of brackish water, well drilling and treatment for municipal water supply in Hendry and western Palm Beach counties, and storage of reclaimed water in Collier and Lee counties.

On average, most funded projects will receive between $500,000 and $1.5 million toward construction costs, representing up to 40 percent of the project total. Recipients that sponsor the project fund the balance. Economically disadvantaged communities are eligible for full funding.